

## Description

The E-T-A Current Protector is designed to monitor the primary current of low-voltage transformers for halogen fittings. After system installation, the admissible current range can be stored by operating the storage button (or light switch, with type E-1078-482-...). If the admissible range is exceeded (e.g. by overloads or short-circuit), the Protector will immediately disconnect the system. Underload (e.g. through defective terminal connections) will also cause system disconnection. Fault conditions are indicated by the integral LED. The system can be reconnected by turning the light switch on again once the cause of failure has been remedied.



E-1078-422-...

## Typical applications

- Low-voltage halogen lighting systems
- Can generally be used with sensor touch dimmers (please enquire)
- Suitable for installation in transformer housing or close to transformer (in inaccessible areas, E-1078-482-...)
- Low-voltage transformers (no electronic transformers)

## Features

- Eliminating fire hazard
- Storage of actual lamp load by button (or light switch, with type E-1078-482-...)
- Reset function by light switch
- LED fault indication
- Suitable for lighting systems with dimmers
- Passive relay for long use
- Housing for surface mounting
- Unaffected by inrush currents

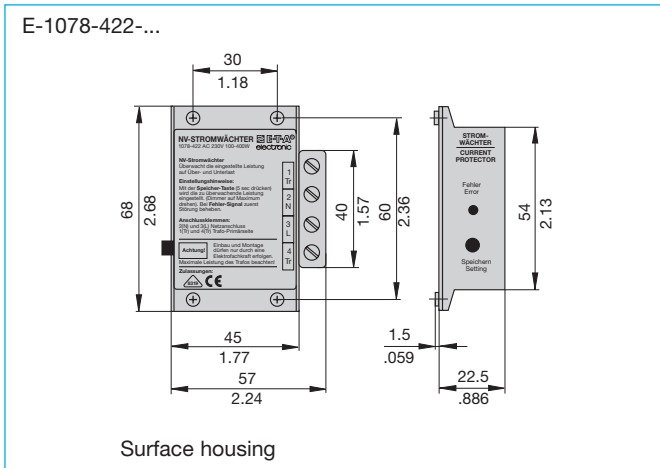
## Ordering information

Type No.	
E-1078-4	Current Protector for low voltage lighting systems
<b>Version</b>	
2	with storage button, capacity up to 400 W
3	with storage button, capacity up to 600 W
8	load storage by light switch, capacity up to 600 W
<b>Housing</b>	
2	housing for surface mounting
3	without housing (without VDE logo)
<b>Voltage rating</b>	
AC 230 V	voltage rating AC 230 V
AC 120 V	voltage rating AC 120 V (please enquire)
<b>Rated load</b>	
60-300 W	lamp capacity 60...300 W (AC 230 V only)
100-300 W	lamp capacity 100...300 W (AC 120 V only)
100-400 W	lamp capacity 100...400 W (AC 230 V only)
300-600 W	lamp capacity 300...600 W (AC 230 V only)
E-1078-4 2 2 - AC 230 V - 100-400 W	ordering example

## Technical data

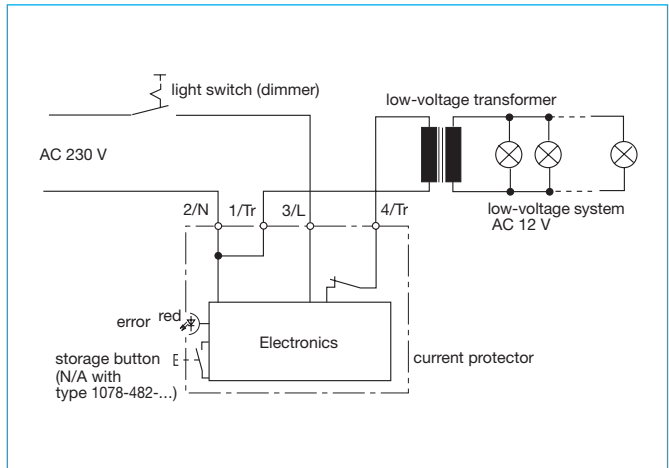
Protective function	short-circuit, overload, underload
Lamp load	60...300 W (AC 230 V only) 100...300 W (AC 120 V only) 100...400 W (AC 230 V only) 300...600 W (AC 230 V only)
Monitoring window	typically: $\pm 40$ W
Response times typ.:	overload 200 ms...2 s (depending on overload) short-circuit 200 ms underload 3 s
Voltage rating	AC 230 V $\pm 10$ %, 50 Hz AC 120 V $\pm 10$ %, 60 Hz
Interrupting capacity	relay contact 8 A
Dimmer operation	between 35 and 100 % of the rated load stored
Temperature range	0...+60 °C
Housing	surface mounted type
Degree of protection:	IP20 housing DIN 40050 IP20 terminals DIN 40050
Connection	screw terminals
VDE approval	Reg. Nr. 8319 to VDE 0160
UL-approval	AC 120 V, 300 W, 60 Hz, to UL 1077

## Dimensions



This is a metric design and millimeter dimensions take precedence ( $\frac{\text{mm}}{\text{inch}}$ )

## Basic circuit diagram



## Instructions for installation and adjustment

For correct performance, the E-T-A Current Protector must be used on the primary side before the low-voltage transformer. It should be connected behind the light switch and the dimmer, if any, into the line to the transformer.

### Caution: Installation by qualified personnel only!

- Install the low-voltage system with the desired rated capacity.
- Set dimmer, if any, at the maximum value (turn knob fully clockwise).
- Switch on light.
- Storage of lamp load:  
With version -422/-432 (with storage button):  
Keep storage button pressed for approx. 5 s to store lamp load installed.

### With version -482 (storage by light switch):

- The lighting will be on for a short time and will go out after max. 0.2 sec (the Protector which has not yet been set senses an overload and disconnects the system).
- Turn light switch OFF and ON within 0.5 s to store the actual rated load. Storage takes approx. 20 s; do not switch off the lighting during this period!
- A new rated load can only be set after the Protector has responded to a fault.
- The stored value will be maintained even when the lighting is switched off.

### Caution:

- Observe max. transformer capacity!
- Eliminate any unsymmetrical loading of the power feed caused by half-wave operation.
- Use separate power cables when several low-voltage systems are operated in parallel.

### Protective functions

Immediate disconnection upon short-circuit and overload when additional lamps (loads) are connected.  
Underload disconnection when lamps are removed or in the event of defective terminal connections.

### Action in the event of faults:

- Switch off the lighting system by means of the light switch.
- Remedy cause of failure (call in qualified personnel, if necessary!).

### Possible faults:

- defective lamps
- loose or broken terminals or screw connectors
- short-circuit
- additional lamps

### Reset function of the Protector:

- provided when the lighting is reconnected by switching the light switch on. The lamp load is not re-stored.
- If the load conditions have changed after remedying the fault, the Protector will disconnect within max. 3 s after reconnection of the lighting system.
- Re-storage of lamp load:

With version -422/-432 (load storage by storage button):  
Keep the storage button pressed for approx. 5 sec.

With version -482 (load storage by light switch):  
Turn light switch OFF and ON within 0.5 s. Re-storage takes approx. 20 s; do not switch off the lighting system during this period as this will interrupt the storage process.

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.